California Workforce Pathways Joint Advisory Committee

cwpjac-jul20item02

Attachment 1

# Draft12 Essential Elements for a high-quality college and career Pathway Framework

## Essential Element 1: Student-Centered Delivery of Services

Student-Centered Delivery of Services for all kindergarten through grade fourteen and beyond (K–14+) college and career pathways incorporates the removal of institutional or systemic barriers that impede the progress of students in achieving their education and career goals. This includes a renewed commitment to offer an engaging learning experience and support the diversity of individual student needs while accommodating their multiple entry points as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.

**Local educational agencies (LEAs) should develop, maintain, and strengthen the components of this element by the following:** Each student in the career technical education (CTE) program has a personalized, multi-year education and career plan that reflects exploration of the student’s interests, preferences, and abilities; and informs course selection, planning for further education and a career, and involvement in extended learning.

* To maximize each student’s learning potential, the instruction offered is:
	+ Driven by relevant content area standards and learning objectives,
	+ Supported by relevant equipment, technology, and materials,
	+ Flexible, differentiated, and personalized to meet the needs of a diverse population of students, including special populations,
	+ Connected between academic and technical knowledge and skills, including through cross-disciplinary collaboration, and
	+ Based on student data collected and analyzed to identify effective instructional practices essential to each pathway.
* Project-based learning (PBL) including related instructional approaches, such as problem-based, inquiry-based, and challenge-based learning, are fully integrated.
* Contextualized instruction results when students apply technical, academic, and employability knowledge and skills within authentic scenarios.
* Management of the educational environment builds and creates a culture of learning and respect.
* Facilities, equipment, technology, and materials used:
	+ Reflect current workplace, industry, and/or occupational practices and requirements,
	+ Align to the CTE Model Curriculum Standards and program objectives,
	+ Maximize student access through partnerships and a flexible delivery model, and
	+ Meet federal, state, and local standards for occupational safety and health in the related industry, as appropriate.
* Students demonstrate safe and appropriate use and maintenance of facilities, equipment, technology, and materials.

**Tools for Kindergarten Through Grade Twelve (K–12):**

* Association for Career and Technical Education (ACTE) Online
<https://www.acteonline.org/>
* <https://www.cteonline.org/>
* Design Thinking
* Universal Design for Learning
* Blended Learning
* Flipped Classroom
* Small Group Instruction
* Best First Instruction
* Equitable/Standards Based Grading
* Online grading systems, updated regularly
* Teacher websites, updated regularly, with clear expectations

**K–12 Exemplars:**

* Visit CTE Manufacturing sector programs:
	+ Rocklin Unified School District (USD) – Rocklin High School (HS)
	+ Sacramento City USD – Kennedy HS
* Visit Welding program
	+ Galt USD – Galt HS
* Reimagining Learning Project
* CTE Online Lessons
	+ Fund My Vision - Writing and Pitching a Performance Proposal PBL Project
	+ Design and Create a Food Truck PBL

## Essential Element 2: Equity

Student equity goes beyond the reduction of institutional barriers to create an environment of being fair, impartial, and free from racism, bias, or favoritism, promote educational and employment attainment, and to eliminate the achievement gap for all students including, but not limited to, English language learners and students with disabilities in the K–14+ college and career pathway system.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* The CTE program is promoted to all potential participants and their parents/guardians, in a manner that is free from bias, inclusive, and non-discriminatory.
* Students are actively recruited from populations that have been traditionally underrepresented, including by gender, race, ethnicity, and/or special population (Special Education, English Language Learner, Homeless, Foster Youth, Military, Incarcerated, etc.) status.
	+ Enrollment of students of all genders in non-traditional CTE pathways such as CTE manufacturing and welding programs.
	+ Enrollment of students with Special Education Individual Education Plans in CTE courses and pathways.
	+ Enrollment of English Language Learners, Homeless, Foster Youth, Military, Incarcerated, etc. in CTE courses and pathways.
* Career guidance is offered to all potential and current Career and College pathway programs and programs of study participants in a manner that is free from bias, inclusive, and non-discriminatory.
* Facilities, equipment, technology, and materials are provided in a way that ensures all students have the opportunity to achieve success in all Career and College pathway programs and programs of study, including meeting Federal Title IX, Americans with Disabilities Act, and other accessibility requirements.
* Curriculum, instruction, materials, and assessments are free from bias, inclusive and non-discriminatory, and offered in a way that ensures all students have the opportunity to achieve success in college and career pathway programs and programs of study, including through accommodations, as appropriate.
	+ CTE courses offer training in teamwork and collaboration among diverse learners.
* Supportive services, such as tutoring and transportation assistance, are provided to ensure all students have the opportunity to achieve success in the college and career pathway programs and programs of study, as appropriate.
* Application and/or audition processes for impacted CTE programs should be equitable and not talent or merit based, such as a lottery or placement by academic counselors and case managers.
* All CTE programs should be reflective of their community and school demographics.
* Master schedules should not be restrictive, and students who need additional English language development or academic support should still have access to CTE programs.
* Implicit Bias Training for CTE teachers and staff.

**Tools for K–12:**

* Special education students develop workability skills by learning collaboratively in teams of students with various abilities and learning styles.
* The California Partnership Academy (CPA) Model meeting at-risk criteria.

**K–12 Exemplars:**

* AB Miller HS in Fontana, CA – CTE Dance Program

## Essential Element 3: Access

Access denotes a broader vision of equity ensuring that all students are provided ample opportunities to attain the necessary skills, education and training required to maximize their individual goals, including a collective awareness of all the supports that are available to students both inside and out of class. Access also facilitates the elimination of the achievement gap by providing information on how to access programs, services, and rigorous course work for all California students regardless of region, gender, socio-economic status, special needs, and/or English proficiency. Access also includes creating pathways with demonstrable careers for students.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Opportunities provide for better use of after-school, extended-day, and out-of-school time for career exploration, projects, and work-based learning (WBL) connected to in-class curricula.
* Open-entry/open-exit strategies where feasible, in ways that maintain the integrity of CTE courses, course sequences, and comply with industry requirements.
* Implemented school and program equity and access policies (Written policies, policies sent home, etc.).
* Promotional materials that represent a broad range of career options that are translated into languages spoken by families in the school community; and highlight support for special populations.
* Instruction and materials are accessible and differentiated to student needs with appropriate adaptations, modifications and supports.
* Support systems in place for WBL and learning beyond the classroom walls (Examples include mentors, coaches, after school programs, etc.).

**Tools for K–12:**

* Conduct CTE and core teacher trainings on culturally relevant instructional strategies.
* Create online resources for teacher collaboration on the development of cultural and comprehensive inclusion classroom management strategies.

## Essential Element 4: Leadership at All Levels

**Leadership at all levels** is required to achieve greater integration across systems and programs to ensure that the contexts for an engaging learning experience can occur and programs connect. The goal is to allow all students to reach across systems easily and succeed with their desired outcomes including employment, and ensure employers have the workforce needed to thrive.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* A commitment of dedication to the CTE program that includes a process that will be used to verify that the commitments are ongoing and structural.
	+ Ongoing partnerships with postsecondary and industry that include advisory, curriculum input, and work-based learning opportunities/internships for all participating students.
	+ Reflect state, regional, and/or local labor market demands and focus on current or emerging high-skill, high-wage, and/or high-demand occupations.
	+ Informed by the regional plan developed by the Strong Workforce Program and in effect.
	+ Mechanisms (including surveys, Centers of Excellence, etc.) used to collect and report data.
	+ Processes to verify that CTE programs are included in the Local Control Accountability Plan (LCAP) and annual updates to avoid redundancy of planning efforts and fiscal investments.
* Mechanisms (surveys, Centers of Excellence, etc.) systematically track labor market demands, maintain the currency of occupational classifications, and ensure that teachers and counselors are informed of new developments in their fields, and LEAs and site administrators continue to support the investments.
* Working CTE plan should include a description of how:
	+ CTE programs offered are of sufficient size, scope, and quality to meet the needs of all students; aligned to in-demand industry sectors or meet local education or economic needs,
	+ Academic courses are integrated within each college and career and pathway programs and programs of study, and aligned with approved state academic and CTE standards,
	+ Recruitment, retention, and training of CTE teachers, faculty, specialized instructional support personnel, paraprofessionals, and career/academic counselors, including individuals in groups underrepresented in such professions,
	+ Implementation of equal access to high-quality CTE courses, including strategies to overcome barriers that result in lower rates of access to courses, or performance gaps,
	+ Programs are designed to enable special populations to meet the local levels of performance,
	+ Activities to prepare special populations for high-skill, high-wage, or in-demand industry sectors or occupations in competitive, integrated settings that will lead to self-sufficiency, and
	+ How stakeholders are included in the development and evaluation of the CTE program.
* CTE programs participate in the development of the LCAP, Individual Site Plans, Site Council and Western Association of Schools and Colleges processes.

**Tools for K–12:**

* Otis College of Art and Design Report on the Creative Economy

**K–12 Exemplars:**

* CTE Plans – Strengthening Career and Technical Education for the 21st Century Act.

## Essential Element 5: High–Quality, Integrated Curriculum and Instruction

High-Quality, integrated curriculum and instruction informed by labor market information, student interest, technology, industry standards, and real-world engagement through relevant WBL opportunities is essential to prepare students. Rigorous and aligned programs should be supported to guide students through relevant course sequences (i.e., both in-person and online) and WBL opportunities leading to a mastery of standards, high school graduation, and transition to postsecondary education, training, apprenticeship, and/or employment, as appropriate. Courses and programs may be designed to use cross-system strategies like dual enrollment and/or dual credit with community colleges and universities or other articulations to create a seamless student experience, and avoid unnecessary repeating of courses or other inefficient practices to facilitate “on-time” postsecondary graduation, where appropriate. Stackable badging and credentials can ensure frequency of assessment and value-added outcomes.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Programs designed by sequential pathway should:
	+ Clearly outline qualifying coursework and alignment to the CTE Model Curriculum Standards, the Standards for Career Ready Practice, and academic standards.
		- Include a sequence of courses across secondary and postsecondary education that incorporates industry-validated technical standards and competencies; relevant academic content and standards for core subjects, such as reading, math, and science, including state and/or local standards, as appropriate; and employability knowledge and skill standards that help students succeed in the workplace, such as problem solving, critical thinking, teamwork, communications, and workplace etiquette.
		- Start with broad foundational knowledge and skills, and progresses in specificity to build students’ depth of knowledge and skills.
		- Incorporate content standards that are non-duplicative and vertically aligned to prepare students to transition seamlessly to the next level of education or training.
		- Develop curriculum with employer input to prepare students for both further education or training in-demand and emerging careers.
		- Ensure that curriculum allows for student application of integrated knowledge and skills in authentic scenarios.
	+ Lead to an industry recognized credential or certificate and/or employment and/or appropriate postsecondary education, training, and/or degree.
	+ Reflect and aligns to regional and/or local labor market demands and focuses on current or emerging high-skill, high-wage, and/or high-demand occupations.
	+ Contain course assignments and training plans that relate to pre-apprenticeships, internships, industry certifications, and WBL opportunities.
	+ Have effective collaboration to review curriculum and instruction, vertical alignment, plan program and support services, develop/update and improve articulation/dual credit agreements with postsecondary partners.
	+ Make CTE program standards publicly available and accessible to students, parents/guardians, partners, and the public.
	+ Include a regular review of curriculum by all relevant stakeholders and revised as necessary to reflect the latest advances in the industry, evidence-based program models, evaluations of student performance, or unexpected circumstances like COVID-19.
	+ Create a master schedule that enables students to follow the recommended sequence of courses to complete the pathway(s).
* WBL is a critical component that defines high-quality Career and College pathway programs and programs of study, and the experiences or opportunities offered should:
	+ Align with relevant state standards progressing in intensity, and accessible to every student at some point during the pathway journey.
	+ Develop and reinforce relevant technical, academic, and employability knowledge and skills.
	+ Intentionally align with each student’s educational and career goals.
	+ Provide delivery methods that maximize meaningful interaction with business professionals.
	+ Address access, selection, liability, supervision, rights and responsibilities, safety, transportation, learning objectives, and student evaluations are formalized and shared in advance of WBL experiences with employers, students, and parents/guardians through requirements and procedures.
	+ Comply with relevant federal, state, and local laws and regulations.
	+ Be supervised by school CTE staff with clearly defined roles.
	+ Have students engaged in reflection and document learning resulting from WBL experiences, such as through a portfolio or presentation.

**Tools for K–12:**

* Interactive 10-year college and career plan
* Pathway matrix
* CTE Model Curriculum Standards
* Standards for Career Ready Practice
* Academic standards crosswalks
* Articulation/dual-enrollment agreements
* University of California “a-g” course submission process
* WBL training agreements, student participation records, and evaluations
* California Longitudinal Pupil Achievement Data System
* Industry sector student surveys
* Labor market data
* University of California Curriculum Integration Courses
* Art, Media, and Entertainment (AME) Leadership Institute
* CTE Online
* ACTE Online
* Educating for Careers

**K–12 Exemplars:**

* Interactive 10-year college and career plan
* Pathway matrix
* Academic standards crosswalks
* Course syllabi
* Effective Collaboration
* CTE Online
* Orange County Office of Education (COE)-Orange County Pathways, CTE partnership consortiums
* Nueva School for the Arts(<http://www.nuevaschool.org/>) [Note: Link modified to update to new school website address – October 2023]
* California Partnership Academy Models

## Essential Element 6: Skilled Instruction and Educational Leadership, Informed by Professional Learning

Skilled instruction and educational leadership, informed by professional learning, is the cornerstone of the public education system in California. The educational experience is only as strong as the capacity and investment made in faculty, educational leaders, and the other key field talent to provide in-class, online, or WBL opportunities, as well as developing an awareness of student support services. California encourages the culture of innovation and entrepreneurialism in program instruction and design that leads to student success.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* All CTE educators need ongoing professional development to build their knowledge on current trends and development, curricular or instructional products that include online and distance learning, and understanding of use of student performance data that affect their CTE pathway, which should:
	+ Include extern and internship opportunities for all CTE educators.
	+ Meet appropriate state, district, and/or institution certification and licensing requirements.
	+ Maintain up-to-date knowledge and skills across all aspects of an industry and relevant evidence-based pedagogical knowledge and skills.
	+ Develop and maintain program instruction and design that lead to student success.
	+ Foster a culture of innovation and entrepreneurialism.
* Administrators ensure that all CTE program staff have the time, resources, and supports to implement each element of a high-quality CTE program.
* CTE and academic staff collaborate regularly and frequently to coordinate curriculum, instruction, assessment, and extended learning activities and to analyze data for program improvement.
* Career development professionals have access to professional development and up-to-date information on extended learning experiences, education and training options, and regional occupational trends to aid students in education and career planning and decision making.

**Tools for K–12:**

* CTE Teacher Internships and Externships during summer months
* Advisory meetings and feedback
* AME Leadership Institute
* Joint Special Populations Advisory Committee

**K–12 Exemplars:**

* Nueva Arts Externship Projects
* Externship programs at
	+ Sonoma COE
	+ San Diego COE
	+ Ventura COE

## Essential Element 7: Career Exploration and Student Supports

The strong presence of career exploration and student supports is an essential component for establishing a learning plan for all K–14+ students. This includes identifying appropriate foundational courses (i.e., using competency-based learning) and information about jobs, determining student progression in a single pathway or along multiple pathways or sequences of learning, or making available in-class and online course offerings and WBL opportunities. To complement their learning plan, students should also have access to comprehensive counseling, individualized supports along their journey (including, but not limited to, students who are part-time, face barriers to learning, need academic or cultural supports, transportation, child care, or financial aid), or opportunities through student leadership development organizations to achieve their individual goals and aspirations, through a variety of transitions, in an ever-changing workforce.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Identifying career and academic needs and gaps:
	+ Identify tools to use in determining student career and learning needs.
	+ Collaborate and develop student supports and counseling services for all CTE pathway students.
	+ Collect data on supports to evaluate effectiveness and continuous improvement.
* Ongoing kindergarten through grade eight (K–8) career exploration opportunities.
* Comprehensive career exploration and development is coordinated and sequenced to promote and support the career decision-making and planning for all students commencing in elementary and middle school, prior to entering the CTE program.
* Career development activities are aligned with relevant state and/or local standards.
* All students and parents/guardians are provided accurate and timely information on extended learning experiences, such as WBL, Career Technical Student Organization (CTSO) participation and articulated credit; further education and training options, including application procedures, enrollment, financing, and their projected education, employment and earning outcomes; regional occupational trends and outlooks, high-demand and high-wage career opportunities, and the educational pathways that lead to current and projected career opportunities.
* Students have access to job search information and placement services as they near completion of their pathway.
* Instruction in pathway programs provides objective information on student attainment of industry-validated technical, academic, and employability knowledge and skills.
* The pathway program prepares students to acquire industry certifications and postsecondary credentials.
* The CTSO is an integral, intra-curricular part of a CTE program, available to every student at some point during their pathway program that:
	+ Is affiliated with the state association.
	+ Is aligned with relevant state and/or local standards.
	+ Develops activities and reinforces relevant technical, academic, and employability knowledge and skills.
	+ Provides opportunities for students to interact with business professionals.
	+ Provides opportunities for students to participate in relevant competitive events, community and school service activities, and leadership development activities.
	+ Is supervised by CTE staff with clearly defined roles.
	+ Includes an annually developed work plan, which aligns with the LEAs’ LCAP and other LEA goals.
	+ Collects student leadership data, including participation, activities, and effectiveness of program.

**Tools for K–12:**

* California Career Resource Network
* Career Zone
* Naviance
* Get Focused, Stay Focused
* K–8 CTE specialists/co-teaching
* Student career plans
* Student portfolios and websites
* O\*NET
* Joint Special Populations Advisory Committee

**K–12 Exemplars:**

* California Career Resource Network
* Career Zone
* SkillsUSA Framework, Career Essentials and Leadership Development Program
* Future Farmers of America Career and Leadership Events/Programs
* Any other California State recognized Career Technical Student Organization including DECA; Future Business Leaders of America (FBLA); Family, Career, and Community Leaders of America (FCCLA); and Health Occupations Students of America (Cal-HOSA) Leadership Development Programs

## Essential Element 8: Appropriate Use of Data and Continuous Improvement

Appropriate use of data and continuous improvement should continue to drive CTE through relevant accountability that is outcomes-based, is supported both vertically and horizontally across systems, and ensures equity and access for all students. Continuous improvement ensures students can access the best pathways possible. Focusing on students’ and employers’ needs will allow for identification of capacity building, refinement of programs, and elimination of inefficiencies to meet the existing and emerging needs of regional economies. The intentional sharing of specific data elements that are actionable across systems will help to showcase student attainment, including mastery of standards, and be informed by industry needs to achieve relevant system outcomes. Responsible data use is designed to inform practice and improve programs, not to track students.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Formative and summative assessments are integrated to validate student learning gains through multiple forms of assessment that demonstrate their knowledge and skills, aligned to program standards and curriculum, and appropriate to students’ current level of knowledge and skill attainment.
* Assessments are valid, reliable, and developed or chosen in accordance with relevant quality standards and provide objective information on student attainment of academic, employability, and industry-validated technical knowledge and skills.
* All stakeholders understand why data is collected, how data will be used, and the value of data in supporting student success and a continuous quality improvement process of pathway programs.
* Processes and supports are in place to ensure the timely and accurate collection and submission of valid and reliable data for required reporting.
	+ CTE Incentive Grant or K–12 Strong Workforce data collection
	+ Comprehensive Local Needs Assessment Data Minimums (Perkins/State Plan)
* Privacy and security protections that adhere to all federal, state, and local privacy laws are in place for data collection, storage, analysis, and reporting.
* Educators have access to relevant, valid, and reliable data disaggregated by gender, race, ethnicity, and special population status, thus facilitating the comparisons of access and performance among subpopulations and with the general student population and the identification of equity gaps.
* Data is shared in an easy to understand format with students, parents/guardians, business/industry and postsecondary education partners, and the public.
* There is a formal process in place for the systematic and continuous use of data, such as student access and performance data and program evaluation results, for capacity building of pathway programs, including addressing equity gaps.

**Tools for K–12:**

* Annual student surveys in all pathways
* Pathway and academic student progress tracking through local Learning Management Systems (LMS)
* Comprehensive data minimum requirements per state plan
* Online grading and learning management systems
* Student Portfolio
* Skill attainment through CTSO tests and demonstration
* Student earned certification in soft skills and technical skills

**K–12 Exemplars:**

* Ventura COE
* Orange COE

## Essential Element 9: Cross–System Alignment

Opportunities for strategic and intentional cross-system alignment should be informed by the ongoing analysis of student data, and alignment of data definitions across systems to provide, for example, deliberate sector-based programs, deployment of technical field assistance using a regional distribution, or evidence-based practices and processes to optimize pathway success and upward mobility opportunities for all participants.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* K–12 and postsecondary CTE faculty and administrator collaboration of curriculum, instruction, program planning, and support services.
* Vertical articulation and active outreach to partner elementary and middle schools, community colleges and four-year institutions of higher education.
* Building transition agreements with local or regional consortia and developing a transition guide to assist students as they progress from elementary to middle to high school and to community college, institutions of higher education or other training programs.
* Dual-enrollment, concurrent enrollment and articulation agreements.
* Sufficient time and resources are provided for faculty to build cross-disciplinary collaboration aimed at aligning curricula and programs as well as models, tools, and professional development to facilitate pathway development among middle/feeder schools, high schools, and postsecondary institutions.
* Student data and alignment of data definitions between systems and agencies
* Deployment of technical assistance… i.e. Technical Assistance Providers and Workforce Pathway Coordinators serving both CTEIG and K–12 Strong Workforce Program.

**Tools for K–12:**

* CTE pathway events for K–8
* High School student mentors for K–8 students
* Elementary outreach projects
* Field trips to community colleges and events hosted by industry partners
* CTE elective fairs and shadow days
* Community College Partners

**K–12 Exemplars:**

* K–8 outreach
	+ Twin Rivers USD
	+ Simi Valley USD
	+ Huntington Beach Academy for the Performing Arts
	+ Chula Vista Elementary School District
* K–12 Strong Workforce Program

## Essential Element 10: Intentional Recruitment and Marketing (Promotion, Outreach, and Communication)

Intentional recruitment and marketing (promotion, outreach, and communication) should reflect an understanding of students’ and employers’ needs, be consistent in its messaging to stakeholders across all segments, and use tools and reports as a platform to display the added value of high–quality K–14+ college and career pathway programs.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Pathways within the CTE program develop a recruitment plan within their CTE work plan that includes:
	+ Recruitment activities that will be conducted for feeder elementary and middle schools, and
	+ Multi-lingual recruitment materials should be used to promote the program (brochures, website, etc.).
* Regular board reports and CTE updates.
* CTE program and pathways are communicated and promoted to CTE and non-CTE faculty, counselors, guidance staff, administrators, parents, students, and business/industry and labor to foster an understanding of the program/pathway and a shared vision for student success.
* Accessible and visual CTE presence on district and school websites that include examples of business/industry partner testimonials of student success as well as from alumni.
* Actively conduct outreach activities to develop pathway programs that are informed by regional and local business/industry and community needs as well as student interest.
* Academic counselors and site administrators understand and support CTE pathway enrollment and completion as they are responsible for student program placement.

**Tools for K–12:**

This section will be further developed by adding tools.

**K–12 Exemplars:**

* Windsor USD, CTE web page (<https://wusdcte.weebly.com/>)
* San Diego COE

## Essential Element 11: Sustained Investments and Funding Through Mutual Agreements

Sustained investments and funding through mutual agreements must be present to encourage regional alliances along with industry sector strategies, especially with a focus on current and/or emerging high-skill, high-wage, and/or high-demand occupations. This includes but is not limited to K–12 Education, Adult Education, Higher Education, Labor, Economic Development Councils, Chambers of Commerce, Workforce Development Boards, career advisory boards, and regional industry alliances aligned by sector that lead to an industry-recognized credential or certificate, postsecondary training, apprenticeship, and/or employment.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* A three-year plan for continued financial and administrative support for CTE programs that demonstrates financial commitment of no less than the amount expended on those programs in the previous fiscal year.
* Allocated time for collaboration that provides support for CTE leadership at the local level to ensure that CTE administrators, teacher(s), counselors, and other instructional leaders have sufficient time, training, and resources to implement system improvements, establish mutual agreements, and work with their counterparts in other education and training programs.
* Formal agreements, such as MOUs, etc. with middle schools, industry partners, postsecondary institutions, and others as necessary.
* Partnerships in K–12 Strong Workforce Program

**Tools for K–12:**

* Memoranda of Understanding (MOU) agreements

**K–12 Exemplars:**

* MOUs developed for CTE Incentive Grant Consortia

## Essential Element 12: Strong Partnerships with Industry

Strong partnerships with industry and appropriate employers must be developed to inform and improve CTE program design, instruction and WBL activities; as well as, ensure that career pathway programs in all grade levels, organizations, and apprenticeship programs continue to meet the workforce demands.

**LEAs should develop, maintain, and strengthen the components of this element by the following:**

* Organize advisory committees serve as an integral part of an LEA’s college and career pathway program and programs of study, including meetings that address program progress, program/industry needs, and opportunities for students.
* Actively conduct outreach activities to develop partnerships to ensure Career and College pathway program and programs of study are informed by regional and local business/industry and community needs while also considering student interest.
* Form ongoing and meaningful industry and labor partnerships with a diverse range of stakeholders who represent differing perspectives, including employers from small, medium, and large businesses; industry representatives; community, workforce and economic development agencies; and other education stakeholders.
* Establish a formalized, structured approach to coordinating partnerships, such as an advisory board or sector partnerships.
* Require business/industry and labor partners ensure that each college and career pathway program and program of study meets current and future workforce demand and skill needs by identifying, validating, and reviewing curriculum, appropriate assessments, and postsecondary credentials, and evaluating facilities, equipment, technology, and materials to ensure consistency with industry standards.
* Business/industry and labor partners support students’ and educators’ extended learning by identifying, providing, and evaluating WBL experiences for students; participating in CTSO activities – for example, serving as mentors and judges; and offering opportunities, such as externships, for educators to stay current with industry-relevant knowledge and skills.
* Business/industry and labor partners support college and career pathway program and programs of study in tangible ways, by investing funds, providing in-kind support and/or helping raise external funds to meet pathway program goals; or for helping to sustain the programs by advocating for and promoting the pathway program.
* Business and industry partners help to evaluate the effectiveness of each pathway program in preparing students for further education, training and lifelong pursuit of their careers.
* District and administrative support for teachers is critical to establish and sustain relationships with labor and industry.

**Tools for K–12:**

* Mentors Guide to WBL
* Advisory meetings
* WBL Continuum
* Job shadow
* Shared facility use
* Externships/internships for teachers and students
* Surveys
* AME Leadership
* Educating for Careers

**K–12 Exemplars:**

* Nueva School for the Arts
* Coronado School for the Arts
* Santa Susana HS
* Huntington Beach Academy of the Performing Arts

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